

PLEASE AMEND THIS APPLICATION AS FOLLOWS:

In the Claims:

Amend claims 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 300, 310, 313, 319, 322, 343, 344, 345, 346, 356, 359, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 379, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 397, 400, 401, 402, 406, 407, 408 and 412 as follows:

283. (Amended) A composition of matter comprising:

a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises [more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

284. (Amended) A composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

a second part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion, and a second portion comprising one or more nucleic acid sequences or segments; and

a third part which comprises [more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion or portions on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

285. (Amended) A composition of matter comprising:

a complex which comprises:

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

[more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

286. (Amended) A composition of matter comprising:

a complex which comprises:

an analyte having one or more molecularly recognizable portions thereon;

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

[more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

287. (Amended) A composition of matter comprising:

a first part which comprises more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises [more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

288. (Amended) A composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

a second part which comprises more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

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a third part which comprises [more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

289. (Amended) A composition of matter comprising:

a complex which comprises:

more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

[more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

290. (Amended) A composition of matter comprising:

a complex which comprises:

an analyte having one or more molecularly recognizable portions

thereon;

more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

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[more than] one ~~or more~~ signalling [entity] ~~entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte~~, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said ~~more than one~~ bridging entity nucleic acid second portion, and one or more ^{non-radioactive} signal generating portions capable of providing a detectable signal.

291. (Amended) A composition of matter comprising:

a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises [more than] one ~~or more~~ signalling [entity] ~~entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte~~, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more ~~chemically modified or artificially altered~~ polynucleotides [which have been chemically modified or artificially altered] ~~capable of providing a detectable signal~~.

292. (Amended) A composition of matter comprising:

a complex which comprises

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a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

[more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides [which have been chemically modified or artificially altered] capable of providing a detectable signal.

293. (Amended) A composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

a second part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a third part which comprises [more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides [which have been chemically modified or artificially altered] capable of providing a detectable signal.

294. (Amended) A composition of matter comprising

a complex which comprises:

an analyte having one or more molecularly recognizable portions thereon;

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

[more than] one or more signalling [entity] entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides [which have been chemically modified or artificially altered] capable of providing a detectable signal.

300. (Amended) The composition according to claim 299, wherein said analyte nucleic acid is selected from the group consisting of an oligo- or polyribonucleotide, an oligo- or polydeoxyribonucleotide, a poly-purine, a poly-pyrimidine and an analog-containing polymer, or any combination of the foregoing.

310. (Amended) The composition according to claim 309, wherein said molecular bridging entity recognizing first portion nucleic acid comprises an oligo- or polynucleotide.

313 (Amended) The composition according to claim 310, wherein said oligo- or polynucleotide in the molecular bridging entity recognizing first portion is single-stranded or partially double-stranded.

319. (Amended) The composition according to any of claims 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293 or 294, wherein said nucleic acid sequences or segments in the molecular bridging entity second portion [is] are single-stranded or partially double-stranded.

Claim 322, line 3, after "molecular bridging entity second portion" and before "derived from a phage" change "is" to -- are -- .

343. (Amended) The composition according to any of claims 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293 or 294, wherein said signal generating portion or said one or more chemically modified or artificially altered polynucleotides are [indirectly] capable of [indirectly] providing [a] an indirectly detectable signal.

344. (Amended) The composition according to claim 343, wherein said [indirect] indirectly detectable signal providing signal generating portion is selected from the group consisting of an antibody, an antigen, a hapten, a receptor, a ligand and an enzyme.

345. (Amended) The composition according to claim 343, wherein said [indirect] indirectly detectable signal providing signal generating portion comprises a polynucleotide sequence capable of recognizing a signal-containing moiety.

346. (Amended) The composition according to claim 343, wherein said [indirect] indirectly detectable signal providing signal generating portion comprises a compound capable of binding to an insoluble phase.

356. (Amended) The composition according to any of claims 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293 or 294, wherein the ratio of signalling entities to molecular bridging [entity] entities is greater than 5.

359. (Amended) The composition according to any of claims 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293 or 294, wherein the molecular bridging entity or the signalling entity is immobilized.

364. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, characterized in that said forming step comprises contacting said analyte with said bridging entity to form a first complex and thereafter contacting the first complex with said signalling entity to form said complex recited in said forming step.

365. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, characterized in that said forming step comprises contacting said bridging entity with said signalling entity under conditions sufficient to form a first complex and thereafter contacting the first complex with said analyte under conditions sufficient to form said complex recited in said forming step.

366. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, wherein detecting is [directly] carried out by means of a directly detectable signal provided by said signal generating portion.

367. (Amended) The process according to claim 366, wherein said detecting step the [direct] directly detectable signal [provided by said] providing signal generating portion comprises a radioactive compound.

368. (Amended) The process according to claim 366, wherein said detecting step the [direct] directly detectable signal [is provided by] providing signal generating portion comprises a member selected from the group consisting of a fluorogenic compound, a phosphorescent compound, a chromogenic compound, a chemiluminescent compound and an electron dense compound.

369. (Amended) The process according to claim [368] 366, wherein said detecting step the directly detectable signal providing signal generating portion comprises an enzyme.

370. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, wherein detecting is [indirectly] carried out by means of a indirectly detectable signal provided by said signal generating portion.

371. (Amended) The process according to claim 370, wherein said detecting step the indirectly detectable signal providing signal generating portion is selected from the group consisting of an antibody, an antigen, a hapten, a receptor, a ligand and an enzyme.

372. (Amended) The process according to claim 370, wherein said detecting step the indirectly detectable signal providing signal generating portion comprises a polynucleotide sequence capable of recognizing a signal-containing moiety.

373. (Amended) The process according to claim 370, wherein said detecting step the indirectly detectable signal providing signal generating portion comprises a compound capable of binding to an insoluble phase.

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374. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, wherein said signal generating portion is capable of being detected by a member selected from the group consisting of an enzymatic measurement, a fluorescent measurement, a phosphorescent measurement, a chemiluminescent measurement, a colorimetric measurement, a microscopic measurement, an electron density measurement[,] and a radioactive measurement[, and a binding step on an insoluble phase].

375 (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, wherein the analyte is fixed or immobilized.

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379. (Amended) The process according to claim [363] 443, 444, 445, 446, 447 or 448, wherein the molecular bridging entity or the signalling entity is immobilized.

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382. (Amended) The process according to claim [381] 449, 450, 451, 452, 453 or 454, characterized in that said forming step comprises contacting said analyte with said bridging entity to form a first complex and thereafter contacting the first complex with said signalling entity to form said complex recited in said forming step.

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383. (Amended) The process according to claim [381] 449, 450, 451, 452, 453 or 454, characterized in that said forming step comprises contacting said bridging entity with said signalling entity under conditions sufficient to form a first complex and thereafter contacting the first complex with said analyte to form said complex recited in said forming step.

384. (Amended) The process according to claim [381] 449, 450, 451, 452, 453 or 454, wherein detecting is [directly] carried out by means of a directly detectable signal provided by said signal generating portion.

385. (Amended) The process according to claim 384, wherein said detecting step the [direct] directly detectable signal [provided by said] providing signal generating portion comprises a radioactive compound.

386. (Amended) The process according to claim 384, wherein said detecting step the [direct] directly detectable signal [is provided by] providing signal generating portion comprises a member selected from the group consisting of a fluorogenic compound, a phosphorescent compound, a chromogenic compound, a chemiluminescent compound and an electron dense compound.

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387. (Amended) The process according to claim 386, wherein said detecting step the directly detectable signal providing signal generating portion comprises an enzyme.

388. (Amended) The process according to claim [381] 449, 450, 451, 452, 453 or 454, wherein detecting is [indirectly] carried out by means of a indirectly detectable signal provided by said signal generating portion.

389. (Amended) The process according to claim [386] 388, wherein said detecting step the indirectly detectable signal providing signal generating portion is selected from the group consisting of an antibody, an antigen, a hapten, a receptor, a ligand and an enzyme.

390. (Amended) The process according to claim 388, wherein said detecting step the indirectly detectable signal providing signal generating portion comprises a polynucleotide sequence capable of recognizing a signal-containing moiety.

391. (Amended) The process according to claim 388, wherein said detecting step the indirectly detectable signal providing signal generating portion comprises a compound capable of binding to an insoluble phase.

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392. (Amended) The process according to claim [381] 449, 450, 451, 452, 453
or 454, wherein said signal generating portion is capable of being detected by a
member selected from the group consisting of an enzymatic measurement, a
fluorescent measurement, a phosphorescent measurement, a chemiluminescent
measurement, a colorimetric measurement, a microscopic measurement, an
electron density measurement[,] and a radioactive measurement[, and a binding
step on an insoluble phase].

393. (Amended) The process according to claim [381] 449, 450, 451, 452, 453
or 454, wherein the analyte is fixed or immobilized.

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397. (Amended) The process according to claim [381] 449, 450, 451, 452, 453
or 454, wherein the molecular bridging entity or the signalling entity is immobilized.

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400. (Amended) The process according to claim [399] 455, 456, 457 or 458,
characterized in that said forming step comprises contacting said fixed or
immobilized analyte with said bridging entity to form a first complex and thereafter
contacting the first complex with said signalling entity to form said complex
comprising said composition and said analyte recited in said forming step.

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401. (Amended) The process according to claim [399] 455, 456, 457 or 458,
characterized in that said forming step comprises contacting said bridging entity
with said signalling entity under conditions sufficient to form a first complex and
thereafter contacting the first complex with said fixed or immobilized analyte under
conditions sufficient to form said complex comprising said composition and said
analyte recited in said forming step.

402. (Amended) The process according to claim [399] 455, 456, 457 or 458,
further comprising one or more washing steps prior to detection.

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406. (Amended) The process according to claim [405] 459 or 460, characterized
in that said forming step comprises contacting said fixed or immobilized analyte
with said bridging entity to form a first complex and thereafter contacting the first
complex with said signalling entity to form said complex comprising said
composition and said analyte recited in said forming step.

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407. (Amended) The process according to claim [405] 459 or 460, characterized in that said forming step comprises contacting said bridging entity with said signalling entity under conditions sufficient to form a first complex and thereafter contacting the fixed or immobilized analyte with the first complex under conditions sufficient to form said complex comprising said composition and said analyte recited in said forming step.

408. (Amended) The process according to claim [405] 459 or 460, further comprising one or more washing steps prior to detection.

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Claim 412, line 7, after "segments" and before "and" change the colon ":" to a semicolon -- ; --.

Cancel claims 363, 381, 399 and 405.

Add new claims 439-460 as follows:

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-- 439. (NEW) The process according to claim 363, wherein said step of detecting the analyte by a signal provided by said signal generating portion or portions present in said complex comprises a binding step on an insoluble phase. --

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-- 440. (NEW) The process according to claim 381, wherein said step of detecting the analyte by a signal provided by said signal generating portion or portions present in said complex comprises a binding step on an insoluble phase. --

-- 441. (NEW) The composition according to claim 309, wherein the nucleic acid in said molecular bridging entity recognizing first portion and said molecular bridging entity nucleic acid second portion are incapable of hybridizing to identical oligo- or polynucleotide sequences. --

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-- 442. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:
providing the composition of claim 441;
forming a complex comprising said composition and said analyte; and

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detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 443. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 444. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 445. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal.

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 446. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 447. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 448. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 449. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

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a second part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion, and a second portion comprising one or more nucleic acid sequences or segments; and

a third part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion or portions on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 450. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

an analyte having one or more molecularly recognizable portions thereon;

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a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 451. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

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a second part which comprises more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

a third part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 452. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

an analyte having one or more molecularly recognizable portions thereon;

more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with said molecularly recognizable analyte portion and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 453. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising:

a first part which comprises an analyte having one or more molecularly recognizable portions thereon;

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a second part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a third part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 454. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

an analyte having one or more molecularly recognizable portions thereon;

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a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising the components of said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 455. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition which comprises:

a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 456. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition of matter comprising a complex which comprises:

a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 457. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition comprising:

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a first part which comprises more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

-- 458. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

providing a composition comprising:

more than one molecular bridging entity, each such entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said more than one bridging entity nucleic acid second portion, and one or more signal generating portions capable of providing a detectable signal;

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by said signal generating portion or portions present in said complex. --

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-- 459. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

providing a composition comprising:

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a first part which comprises a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

a second part which comprises one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by means of said signal

generating portion or portions present in said complex. --

-- 460. (NEW) A process for detecting an analyte having one or more molecularly recognizable portions thereon, comprising:

fixing or immobilizing said analyte or a sample containing said analyte to a solid support;

providing a composition comprising a complex which comprises:

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a molecular bridging entity comprising a first portion capable of recognizing and binding to or hybridizing with a molecularly recognizable portion on an analyte, and a second portion comprising one or more nucleic acid sequences or segments; and

one or more signalling entities substantially incapable of binding to or hybridizing with the molecularly recognizable portion on said analyte, each such entity comprising a nucleic acid portion capable of binding to or hybridizing with said bridging entity nucleic acid second portion, and one or more chemically modified or artificially altered polynucleotides capable of providing a detectable signal;

forming a complex comprising said composition and said analyte; and

detecting said analyte by a signal provided by means of said signal generating portion or portions present in said complex. --

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